

Amendments to the Claims:

Please cancel claims 1 to 12 as presented in the underlying International Application No. PCT/EP2004/008490.

Please add the following new claims as indicated in the listing of claims below.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 to 12 (canceled).

Claim 13 (new): A joint-site structure for a shaft/hub composite workpiece for joining a shaft to a connection flange of a hub part using friction welding, the structure comprising:

a material filling a respective gap between the shaft and the connection flange of the hub part in front of and behind a joint site, the gap preventing spread of the material softened during the friction welding, and a height of the gap being dimensioned in such a way that the composite workpiece, in front of and behind the joint site, has a bonding zone widened relative to a width of a web originally provided on the connection flange section.

Claim 14 (new): The joint-site structure as recited in claim 13 wherein at a friction length of 6 mm and a gap distance of 1.5 mm, the bonding zone has an axial extent of 10 mm.

Claim 15 (new): A friction-welded shaft and hub combination comprising:

a shaft;

a hub having a connection flange; and

a material filling a respective gap between the shaft and the connection flange of the hub part in front of and behind a joint site, the gap preventing spread of the material softened during the friction welding, and a height of the gap being dimensioned in such a way that the

combination, in front of and behind the joint site, has a bonding zone widened relative to a width of a web originally provided on the connection flange section.

Claim 16 (new): The combination as recited in claim 15 wherein the connection flange is a two-step connection flange having no undercuts.

Claim 17 (new): The combination as recited in claim 15 wherein the shaft has undercuts.

Claim 18 (new): The combination as recited in claim 15 wherein the shaft and the hub are made of different materials.

Claim 19 (new): The combination as recited in claim 15 wherein the shaft and hub to be joined have a radial overlap in a region of 1.5 to 2.5 mm.

Claim 19 (new): The combination as recited in claim 15 wherein the shaft or hub is a crankshaft and the other of the shaft or hub is a drive wheel.

Claim 20 (new): A method of joining a shaft to a connection flange of a hub part comprising:

providing a respective defined gap between the shaft and the connection flange in front of and behind a joint site,

subsequently friction welding material in the gap, the gap preventing a spread of the material softened during the friction welding and building up a back-pressure resulting in a high density of the material forced into the gaps.

Claim 21 (new): The method as recited in claim 20 wherein the shaft is a crankshaft for a motor vehicle and the hub part is a drive wheel.

Claim 22 (new): The method as recited in claim 21 wherein the drive wheel is cooled during the friction welding.

Claim 23 (new): The method as recited in claim 20 wherein the hub part is produced without undercuts, and undercuts required for forming the connection flange are produced on the shaft.

Claim 24 (new): The method as recited in claim 20 further comprising using a stepped tool for producing the hub part, and an internal machining of the hub is carried out in one process step.